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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/470,650 | 12/22/1999 | THOMAS A. FIGURA | 94-0280.04 | 6407 |

7590 10/08/2003
CHARLES BRANTLEY
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EXAMINER

KILDAY, LISA A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2829

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/470,650

Applicant(s)

FIGURA ET AL.

Examiner

Lisa A Kilday

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment on 7/18/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-43 is/are allowed.
- 6) ☒ Claim(s) 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 19.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

Claim 11 amended to overcome rejection. Rejection withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Shingo (JP 06-275568).

In re claim 11, Shingo discloses in figures 2-3 a method of processing a semiconductor device comprising: providing a first protruding feature (ref. 16) on a layer of said semiconductor device; providing a second protruding feature (ref. 16 on said layer; defining a recess (21, 22) between the first and second protruding feature and plasma depositing a material w/in said recess (¶¶42-5), wherein said step of plasma-depositing a material further comprises plasma depositing a material comprising a Carbon and a Hydrogen (¶¶2-3, 16), and wherein said step of plasma-depositing a material further comprises plasma-depositing a halogen-free material (¶¶42-49).

Allowable Subject Matter

Claims 41-43 allowed. For clarification purposes, the examiner has interpreted the feature of a first metal line and a second metal line as a single metal line. The applicant is using the term "line" unconventionally. In figures 1-4 although the applicant separately labeled the metal line reference # 20 and #32, the metal line is a single metal

line. The inclusion of the claim language "first metal line" and a "second metal line" implies that there are two metal lines with two separate potentials. In the instant claims, the "first metal line" and "second metal line" are interpreted by the examiner as a single metal line because the metal line does not have multiple potentials and is in fact the same metal line. The first and second metal line language is not given patentable weight because the instant specification supports and enables a single, continuous metal line where a polymer can form inside the metal line.

The following is an examiner's statement of reasons for allowance: prior art teaches forming a polymer in a deposition and etch surrounding. Shingo teaches a highly doped region (2) which may be a metal line if polysilicon is interpreted to be a metal. However, Shingo uses the highly doped region as an etch stop and etches off the highly doped region prior to polymer deposition. Prior art does not teach or suggest forming a polymer between a metal line on a device having a metal line, providing a layer over said polymer, and retaining a state of said polymer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 8/12/03 have been fully considered but they are not persuasive. Applicant's arguments in view of his amendments for the 112, second

paragraph of claim 11 are persuasive. Examiner withdraws the 112, second paragraph rejection for pending claim 11.

Applicant failed to file arguments for claim 11. Nevertheless, the following explanations are provided for the final rejection of claim 11.

Prior art Shingo rejected claims 7 and 10. Applicant amended claim 11 to contain the limitations of claims 7 and 10. The examiner never indicated allowable subject matter for claims 7, 10, or 11. Claim 11 was not examined in Paper No. 17 due to a 112, second paragraph rejection that is now withdrawn. The applicant has canceled claim 12 to overcome the 112, second paragraph rejection.

In re claim 11, Shingo discloses in figures 2-3 a method of processing a semiconductor device comprising: providing a first protruding feature (ref. 16) on a layer of said semiconductor device; providing a second protruding feature (ref. 16 on said layer; defining a recess (21, 22) between the first and second protruding feature and plasma depositing a material w/in said recess (¶¶42-5), wherein said step of plasma-depositing a material further comprises plasma depositing a material comprising a Carbon and a Hydrogen (¶¶2-3, 16), and wherein said step of plasma-depositing a material further comprises plasma-depositing a halogen-free material (¶¶42-49).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

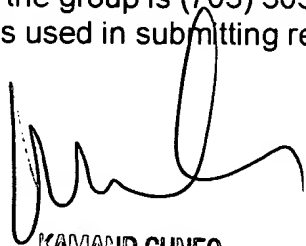
Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0957. See MPEP 203.08.

Any inquiry concerning this communication from the examiner should be directed to Lisa Kilday whose telephone number is (703) 306-5728. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo, can be reached on (703) 308-1233. The fax number for the group is (703) 305-3432. MPEP 502.01 contains instructions regarding procedures used in submitting responses by facsimile transmission.

Lisa Kilday

LAK

9/23/03



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